

Panel Ponders Ways To Get, Keep Good Math and Science Teachers

By David J. Hoff
Washington

A federal commission is promising to unveil what could be a multibillion-dollar plan to attract and keep the 200,000 people needed to teach math and science in the nation's schools.

But midway through their one-year charge, panel members don't know exactly what form their proposals will take.

"This commission ought to come out with some big and bold ideas," Gov. James B. Hunt Jr. of North Carolina said at the March 6-7 meeting of the National Commission on Mathematics and Science Teaching of the 21st Century.

Throughout the rest of last week's meeting here, members of the 25-person panel repeated Mr. Hunt's call for "big and bold" ideas, talking about several programs that could cost more than \$1 billion, with money to be chipped in by federal and state governments, local school boards, and corporations.

The North Carolina Democrat pitched his own proposal to provide a "residency or fellowship for every new math and science teacher in America." His price tag \$1.2 billion.

Chaired by former Sen. John Glenn, D-Ohio, the panel was appointed last year by Secretary of Education Richard W. Riley and charged with recommending ways to improve teacher recruitment, preparation, retention, and professional development. Its recommendations will be sent to Congress in a legislative proposal by the end of the year. The panel is composed of educators, federal and state legislators, business leaders, and researchers.

The Department of Education estimates that the United States needs to recruit 2.2 million new teachers in the next decade. Members of the so-called Glenn Commission estimate that 200,000 will need to be specialists in mathematics or science.

Mentors and More

Among the other ideas discussed at the two-day meeting:

- Assign experienced teachers to mentor rookies for the first several years, and reduce their teaching loads so they can focus on giving help to the new recruits;
- Entice retired teachers back into the classroom by loosening state retirement rules that restrict their ability to earn a salary while collecting pensions;
- Offer raises and bonuses for teachers who earn certification from the National Board for Professional Teaching Standards;
- Expand opportunities for current teachers to improve their practices, adding professional-development days to the school year or offering extended summer workshops for that purpose; and



Former U.S. Sen. John Glenn and fellow commission members listen to testimony on improving math and science teaching.

• Give educators who are now teaching math and science without the proper credentials the training they need.

Seeking New Ideas

Few of the ideas discussed at last week's gathering are new, according to experts invited to address the panel.

Many states, for example, already offer bonuses or pay raises

for teachers to earn master's degrees.

That doesn't mean such incentives and training will yield changes in the classroom.

Despite the fact that California spends "hundreds of millions" in salary increases based on teachers' advanced degrees, one study found that teachers instead chose to expand their knowledge of reading, pedagogy, and other nonscientific fields, according to the state's outgoing secretary of education, Gary K. Hart. "Hardly any were taking courses in math and science," he said.

That reflects a general sense in American society that people shy away from the subjects of math and science because they don't understand them as well as the humanities, said Philip Uri Theisman, a professor of mathematics education at the University of Texas at Austin.

But members of the commission are confident they can mobilize support for their ideas.

On the first day of the session, Craig R. Barrett, the president and chief executive officer of the Intel Corp., estimated he could raise \$500 million from businesses if the federal government and states matched it. He raised his goal to \$1 billion after calculating some of the costs for the programs he wants to see implemented, according to Carlene Ellis, Mr. Barrett's assistant, who attended the second day of the meeting on his behalf.

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Governor of North Carolina

to teachers with national certification. And throughout the 1960s, the federal government subsidized the graduate education of young scientists and provided in-depth summer workshops on new science and math curricula for teachers.

Even today, many schools are spending substantial sums on professional development with money from federal grants and provide salary incentives

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